

## REMARKS

Claims 7-13 are pending in this application.

### Section 102/103 Rejections

The Office Action rejects claim 7-8 under 35 U.S.C. § 102(b) as being anticipated by JP 4-250674. The Office Action also rejects the remainder of the pending claims under 35 U.S.C. § 103(a) as being obvious over JP 4-250674 in view of: a) JP 4-116162 [claims 8-10]; b) JP 59-85868 [claims 11-12]; and c) JP 59-85868 and Kinoshita et al. (U.S. Patent No. 5,173,130) [claim 13]. These rejections are traversed.

The presently claimed invention requires a "light emitting diode comprising a pellet, a major front surface of which is made of a GaAsP mixed crystal, characterized in that the major front surface is a rough surface" (claim 7) and a "fabrication process for a light emitting diode having a pellet, a major front surface of which is made of a GaAsP mixed crystal, characterized in that the pellet is treated with an etching solution of an aqueous solution containing Br<sub>2</sub> or I<sub>2</sub> to form fine projections on at least the major front surface of the pellet" (claim 11).

The Office Action asserts that JP 4-250674 discloses "a light emitting diode...with a GaAsP mixed crystal, wherein the surface...is etched, thereby inherently forming a certain roughness to a surface" (see section #3 on page 2 of the Office Action).

However, Applicants respectfully note that JP 4-250674 specifically discloses that AlGaInP is epitaxially grown on a GaAs substrate. GaAsP is "selectively etched at an ambient temperature by using [concentrated] nitric acid with an SiO<sub>2</sub> mask, and etched up to the surface of the AlGaInP to form a window [and] ohmic electrodes are formed at the

GaAsP and AlGaInP sides to form a light emitting diode." Thus, with JP 4-25074, any surface portions of the GaAsP mixed crystal that are etched are selectively etched all the way to the surface of the AlGaInP layer. No GaAsP would be left in this portion. The other surfaces of the GaAsP are masked and thus would not be etched. Thus, no surface of the GaAsP mixed crystal layer would be expected to be "a rough surface" as required by present claims 7-10. Similarly, no portion of the GaAsP mixed crystal layer would be expected to have fine projections, as required by present claims 11-13.

Since JP 4-250674 does not teach or suggest GaAsP mixed crystal having a rough surface, Applicants respectfully submit that the presently claimed invention is not anticipated by nor would have been obvious over JP 4-250674.

As is the case for JP 4-250674, our understanding is that none of JP 4-116162, JP 59085868, nor Kinoshita et al. teach or suggest GaAsP mixed crystal having a rough surface and thus do not make up for the deficiencies in JP 4-250674. Thus, Applicants respectfully submit that the presently claimed invention would not have been obvious over JP 4-250674 in combination with any of these references.

For at least the above reasons, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) and under 35 U.S.C. § 103(a) are respectfully requested.

### **Conclusion**

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone

number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 01-2300 referencing Attorney Docket No. 107242-00005.

Respectfully submitted,



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